SPIRIT FITNESS

A Heritage of Quality | The Spirit of Innovation

ELLIPTICAL TRAINER

OWNER'S MANUAL

PLEASE CAREFULLY READ THIS ENTIRE MANUAL BEFORE OPERATING YOUR ELLIPTICAL!

Table Of Contents

Important Safety Instructions……...3

Important Electrical Instructions……..4

Important Operation Instructions…….4

Assembly Instructions…….....6

Getting on / off your elliptical…….13

Operation of Your Console……..……15

Programmable Features……..18

Using A Heart Rate Transmitter……..25

General Maintenance……...27

Exploded View Diagram…….……..28

Parts List…….29

ATTENTION
This elliptical is intended for residential use only and is warranted for this application. Any other application voids this warranty in its entirety.

Important Safety Instructions

When using an electrical appliance, basic precautions should always be followed, including the following:
Read all instructions before using this appliance.

WARNING !

1. Read all instructions before using this appliance.
2. Do not operate elliptical trainer on deeply padded, plush or shag carpet. Damage to both carpet and elliptical trainer may result.
3. Keep children away from the elliptical trainer. There are obvious pinch points and other caution areas that can cause harm.
4. Keep hands away from all moving parts.
5. Never operate the elliptical trainer if any of the parts are damaged. If the elliptical trainer is not working properly, call your dealer.
6. Do not operate where aerosol spray products are being used or where oxygen is being administered. Sparks from the motor may ignite a highly gaseous environment.
7. Never drop or insert any object into any openings.
8. Do not use outdoors.
9. Do not attempt to use your elliptical trainer for any purpose other than for the purpose it is intended. The hand pulse sensors are not medical devices. Their purpose is to provide you with an approximate measurement in relation to your target heart rate. Use of a chest transmitter strap is a much more accurate
10. Method of heart rate analysis. Various factors, including the user's movement, may affect the curacy of heart rate readings. The pulse sensors are intended only as exercise aids in determining heart rate trends in general.
11. Wear proper shoes. High heels, dress shoes, sandals or bare feet are not suitable for use on your elliptical trainer. Quality athletic shoes are recommended to avoid leg fatigue.

SAVE THESE INSTRUCTIONS - THINK SAFET*CAUTION*!! Please be careful when unpacking the carton.

Important Electrical Instructions

WARNING!

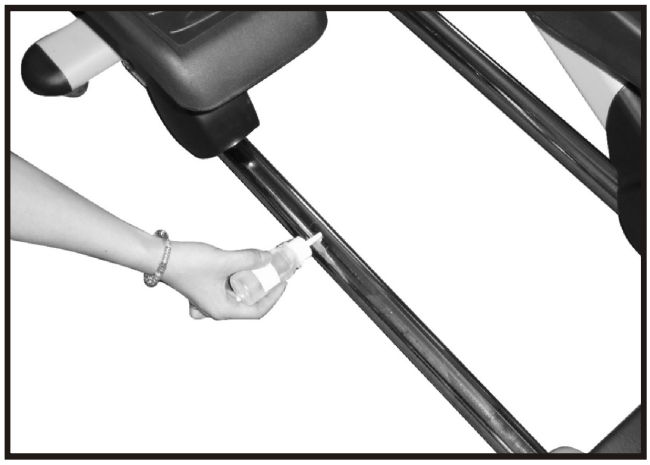
- Be aware that the generator is producing A.C. power while the elliptical trainer is being used. Do not service the elliptical trainer while the generator is spinning; serious electric shock could occur.
- NEVER expose this elliptical trainer to rain or moisture. This product is NOT designed for use outdoors, near a pool or spa, or in any other high humidity environment. The operating temperature specification is 40 to 120 degrees Fahrenheit, and humidity is 95% non-condensing (no water drops forming on surfaces).

Important Operation Instructions

- **NEVER** operate this elliptical trainer without reading and completely understanding the results of any operational change you request from the computer.
- Understand that changes in resistance do not occur immediately. Set your desired resistance level on the computer console and release the adjustment key. The computer will obey the command gradually.
- Use caution while participating in other activities while pedaling on your elliptical trainer; such as watching television, reading, etc. These distractions may cause you to lose balance which may result in serious injury.
- Do not use excessive pressure on console control keys. They are precision set to function properly with little finger pressure.

■ Elliptical Lubrication

1. Pour 2c.c of the lubricant under the middle of the rail. You must lubricate the rails every three months.
2. If you feel the exercise is not smooth or you hear noise during your exercise, lubricate the middle rail with 2 c.c.of the lubricant.



Transportation

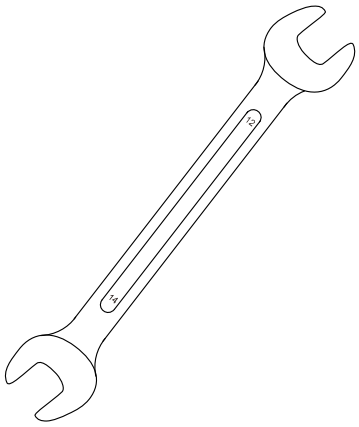
The elliptical is equipped with transport wheels, which are engaged when the rear of the elliptical is lifted.

Assembly Instructions

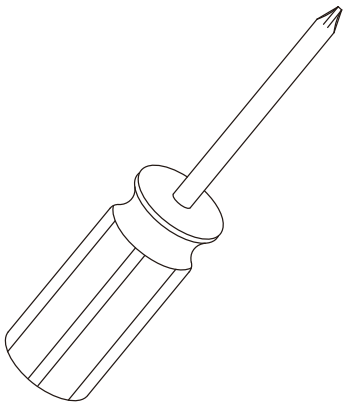
PRE-ASSEMBLY

1. Using a razor knife (Box Cutter), cut the banding straps that wrap around the carton. Reach under the bottom edge of the carton and pull it away from the cardboard underneath, separating the staples that join the two together. Lift the box over the unit and unpack.
2. Carefully remove all parts from carton and inspect for any damage or missing parts. If damaged parts are found, or parts are missing, contact your dealer immediately.
3. Locate the hardware package. The hardware is separated into four steps. Remove the tools first. Remove the hardware for each step as needed to avoid confusion. The numbers in the instructions that are in parenthesis **(#)** are the item number from the assembly drawing for reference.

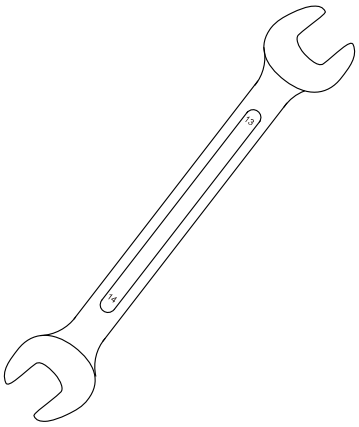
Assembly Tools



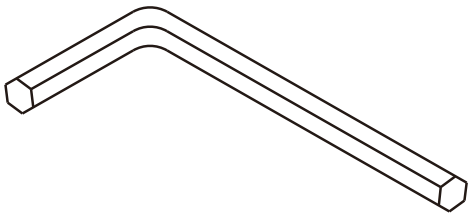
#98. 12/14mm Wrench (1 pc)



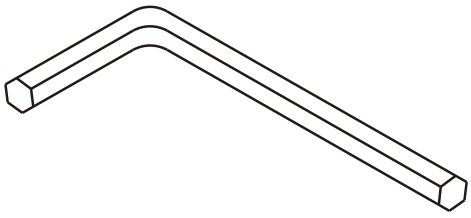
#94. Phillips Head Screw driver (1 pc)



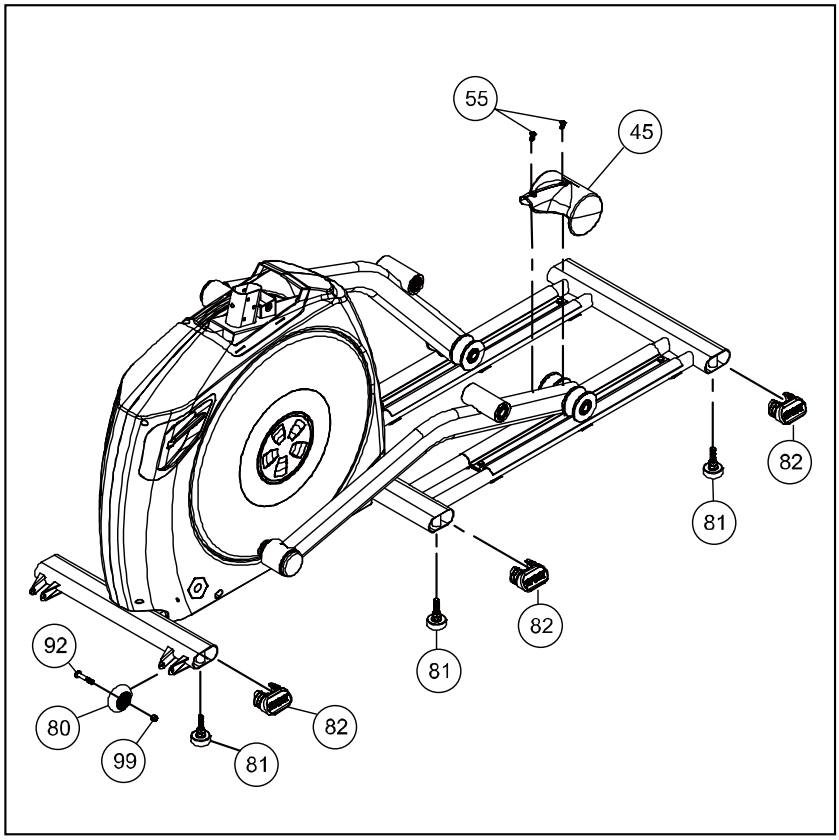
#93. 13/14mm Wrench (1 pc)



#97. 5mm L Allen Wrench (1 pc)



#95. 8mm L Allen Wrench (1 pc)



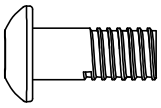
STEP 1

1. Gather **HARDWARE FOR STEP 1**.
2. Tilt the elliptical trainer to one side (you may want to place a piece of Styrofoam or a block under the unit for support). Install the 3 LEVELERS (81) to the underside of the unit. Repeat this lever assembly on opposite side of the unit.
3. Press the 6 END CAPS (82) into the oval stabilizer tubes.
4. Attach the TRANSPORT WHEELS (80) to each bracket with 2 BOLTS (92) and 2 NUTS (99). Partially tighten with the 13/14mm WRENCH and 5mm L WRENCH. Over tightening the hardware will prevent the wheels from rotating.
5. Attach the SLIDE WHEEL COVERS (45) with 4 SCREWS (55). Tighten with the screw driver.

NOTE: When assembly is complete, the transport wheels can be engaged by lifting the rear of the elliptical trainer.

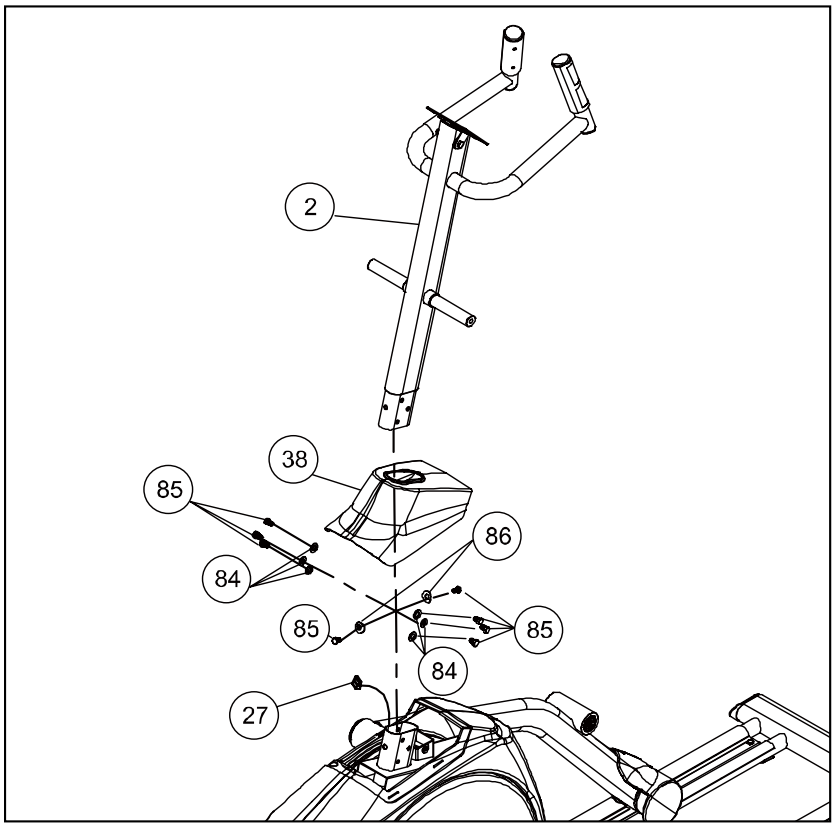
HARDWARE

#55. M5 × 10m/m Phillips Head Screw (4pcs)



#92. 5/16" ×1-3/4" Button Head Socket Bolt (2 pcs)

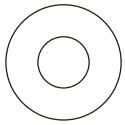
#99. 5/16" Nyloc Nut (2 pcs)



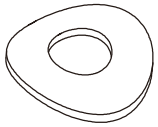
STEP 2

1. Gather **HARDWARE FOR STEP 2.**
2. Unwind the COMPUTER CABLE (27) from the frame bracket and run it through the CONSOLE MAST COVER (38). Use the twist tie at the bottom of the CONSOLE MAST TUBE (2) and wrap around the computer cable. Feed the computer cable up through the MAST (2) and pull through the top of the mast.
3. Insert the bottom of the CONSOLE MAST (2) into the frame bracket. Be sure not to pinch the computer cable between the mast and the frame during this step.
4. Slide the CONSOLE MAST COVER (38) up the CONSOLE MAST (2) and secure the mast to the frame with 3 BOLTS (85) and 3 FLAT WASHERS (84) to each side of the mast. Secure with a BOLT (85) and CURVED WASHER (86) to both the front and back of the mast. Tighten all bolts with the 13/14 WRENCH.
5. Snap the CONSOLE MAST COVER (38) in place over the frame covers.

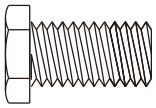
HARDWARE



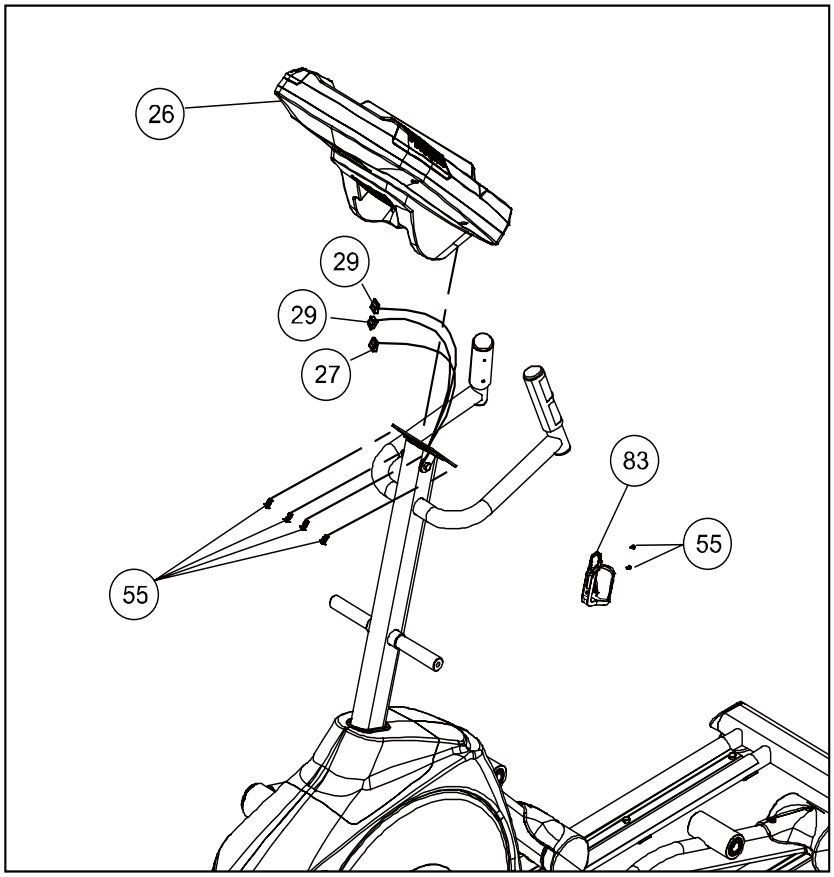
#84. 5/16" × 18 × 1.5T
Flat Washer
(6 pcs)



#86. 5/16" × 23 × 1.5T
Curved Washer
(2 pcs)



#85. M8x15mm
Hex Head Bolt
(8 pcs)

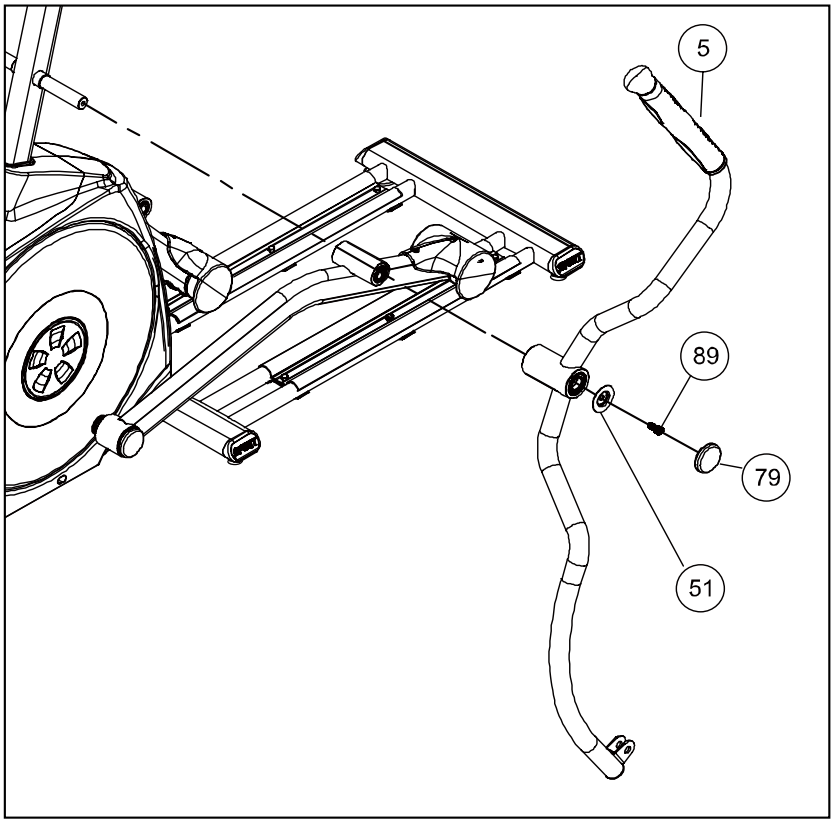


STEP 3

1. Gather **HARDWARE FOR STEP 3.**
2. Plug the COMPUTER CABLE (27) and the HANDPULSE W/ CABLES (29) into the backside of the console.
3. Secure the CONSOLE (26) to the CONSOLE MAST with 4 SCREWS (55). Tighten with the SCREW DRIVER.
4. Secure the WATER BOTTLE HOLDER (83) to the CONSOLE MAST with 2 SCREWS (55).Tighten with the SCREW DRIVER

HARDWARE

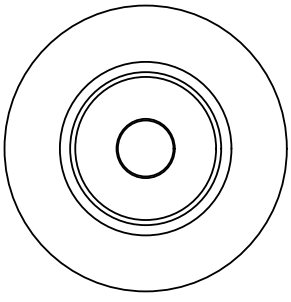
#55. M5 × 10m/m
Phillips Head Screw
(6pcs)



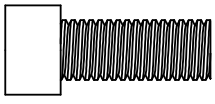
STEP 4

1. Gather **HARDWARE FOR STEP 4.**
2. Remove the foam from the console mast axles and the plastic ties from the swing arm tube.
3. The swing arms will be labeled “L” for left and “R” for right. Slide the LEFT SWING ARM (5) onto the left console mast axle. The swing arms have been preassembled at the factory to assure a proper fit. The fit will be snug. Please do not force the arm on the axle or use a hammer, as damage to the bearings could occur.
4. Secure the swing arm to the mast with the BUSHING WASHER (51) and the SOCKET HEAD CAP BOLT (89). Tighten with the 8mm L WRENCH.
5. Snap on the decorative BUSHING ROUND END CAP (79).
6. Repeat these steps on the right side.

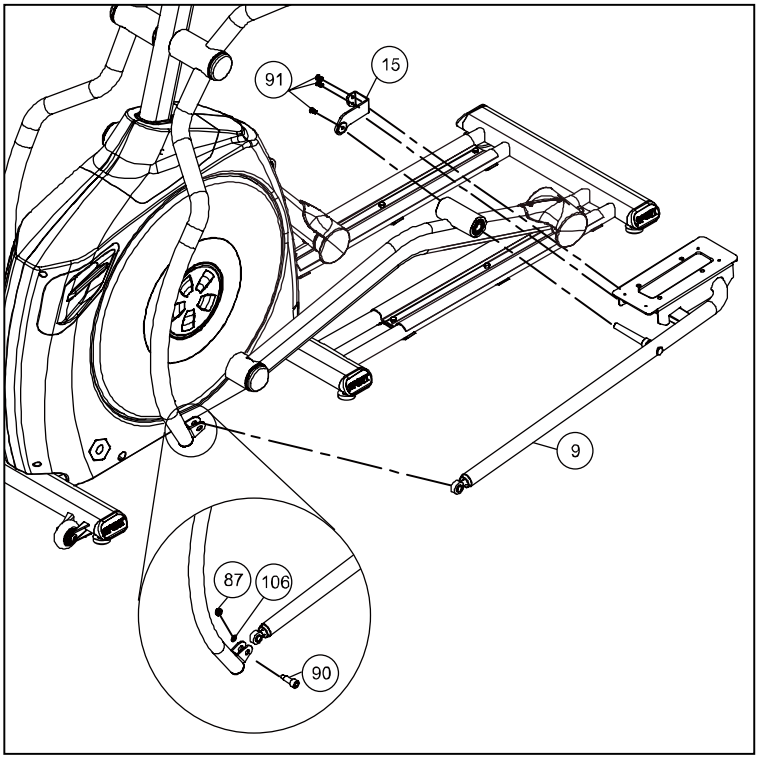
HARDWARE



#51. M10
Bushing Washer
(2 pcs)



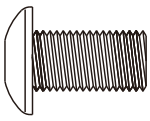
#89. M10 × 20m/m
Socket Head Cap Bolt
(2 pcs)



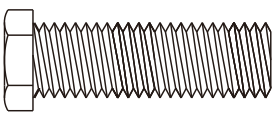
STEP 5

1. Gather **HARDWARE FOR STEP 5.**
2. Take the LEFT CONNECTING ARM (9) and slide the axle through the rotation tube on the left pedal arm.
3. Secure the LEFT CONNECTION ARM (9) in place with the 5-WAY PIPE FIXING PLATE (15) and 3 KEY HEAD SOCKET BOLTS (91).Tighten with the 5mm L WRENCH.
4. Line up the socket joint at the end of the pedal arm to the bracket on the bottom of the swing arm. Secure together with the BOLT (90) WASHER (106) and NUT (87). Tighten with the 13/14 WRENCH and the 12/14 WRENCH.
5. Repeat these steps on the right side.

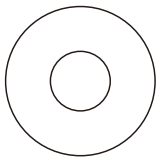
HARDWARE



#91. M8 ×15m/m Button Head Socket Bolt (6 pcs)

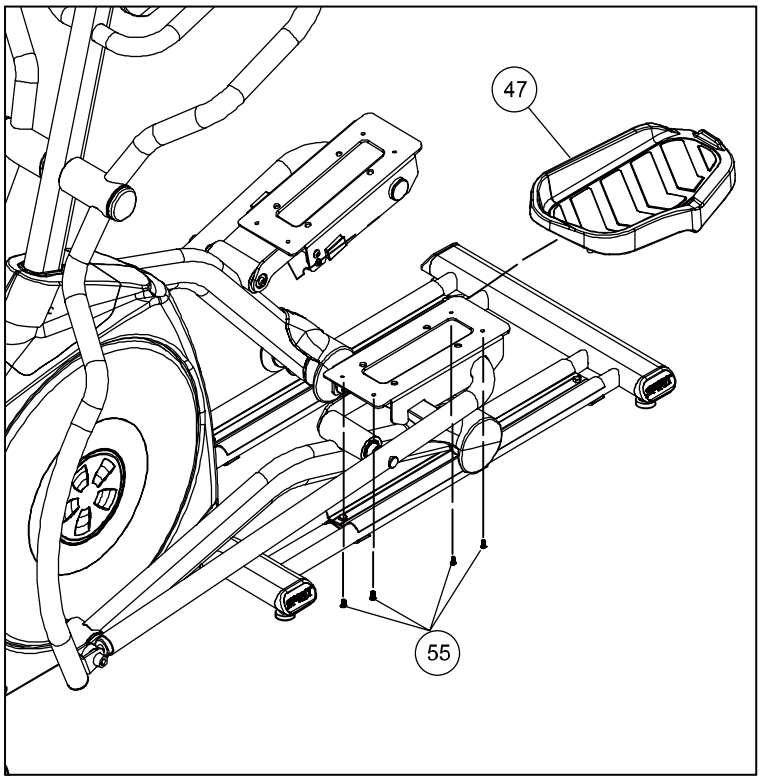


#90. 5/16" × 1- 1/4" Hex Head Bolt (2 pcs)



#106. 5/16" × 20 × 1.5T Flat Washer (2 pcs)

#87. 5/16" × 9T Nyloc Nut (2 pcs)



STEP 6

1. Gather **HARDWARE FOR STEP 6.**
2. Install the FOOT PEDALS (L 47) (R 48) with 8 PHILIPS HEAD SCREWS (55). Tighten with the SCREW DRIVER.

HARDWARE

#55. M5 × 10m/m
Phillips Head Screw
(8pcs)

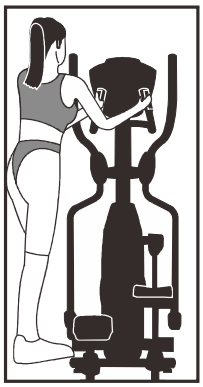
Getting on / off your elliptical

IMPORTANT

The elliptical comes with two Dual Action Handles and a Stationary Handlebar. Always hold the Stationary Handlebar when getting on and off the elliptical. First time users should familiarize themselves with using the elliptical by using the Stationary Handlebar first and then progressing to the Dual Action Handles.

Once you have familiarized yourself with using the elliptical, you can progress to using the Dual Action Handles to provide a total body workout. Hands can be positioned on the Dual Action Handles at the most appropriate position for your height and arm length.

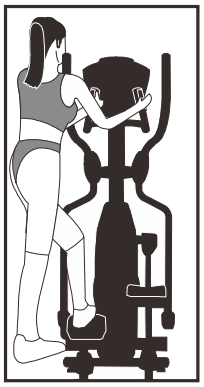
Caution should always be taken when getting on and off any exercise machine. Please follow the safety steps below.

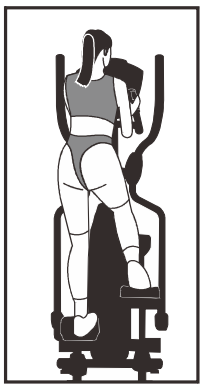


Ensure the left Foot Pedal is in the lowest position and grasp the Stationary Handlebar with both hands.

Place your left foot on the left Foot Pedal and get secure.

Lift your right foot over machine and place on right Foot Pedal. Get balanced and begin your workout.



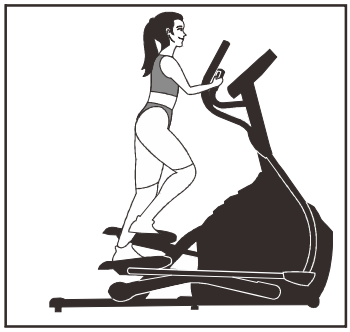


Important

To get off, come to a complete stop and reverse the procedure.
Always wear rubber-soled shoes, such as tennis shoes.
It is recommended that you keep at least one hand on the Stationary Handlebar at all times, especially when getting on or off. If you are performing a walking action with your arms, or doing upper body strength training exercises, ensure you are well balanced.
All equipment should be set-up and operated on solid, level surfaces.

Correct Position

Your body should be in an upright position so that your back is straight. Keep your head up to minimize neck and upper back strain.
Always try and use the elliptical in a rhythmical and smooth motion. If you find yourself feeling uncomfortable, or experience a surging type feeling, there is probably too much tension.



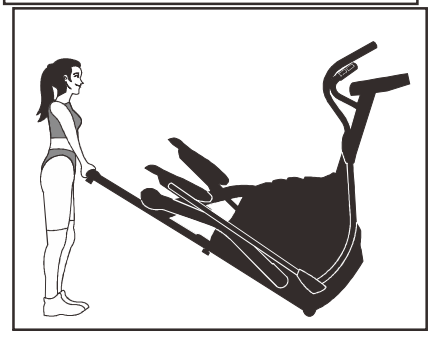
The elliptical can be used in forward or reverse notion.

When going in reverse, bend your knees slightly more. More emphasis is on the buttocks and hamstrings in the reverse motion.

MOVING YOUR ELLIPTICAL

The elliptical can be easily moved from room to room.

1.Move to the front of the machine and ensure swing arms are even (one foot pedal at top of Elliptical Disk and other at bottom).



2.Grasp both Dual Action Handles together and pulling back on handles, tip machine towards you.

Operation Of Your Console

GETTING FAMILIAR WITH THE CONTROL PANEL

Power

The console power is created by a built in generator. When you begin pedaling the Elliptical trainer, the console will automatically power up. If there is no movement at the flywheel, the console will go to stand-by mode. In stand-by mode the console display will turn off. To turn the console on, begin pedaling.

When initially powered on the console will perform an internal self-test. During this time all the lights will turn on. When the lights go off, the Message Center will show the software version (i.e.:VER 1.0). The distance window shows the distance in miles or kilometers and the time window shows the total hours of use.

The odometer will remain displayed for only a few seconds then the console will go to the star t up display. The dot matrix display will be scrolling through the different profiles of the programs and the Message Center will be scrolling the star t up message. You may now begin to use the console.

Dot Matrix Center Display

Twenty columns of boxes (8 high) indicate each segment of a workout. The boxes only show an approximate level (resistance) of effort. They do not necessarily indicate a specific value - only an approximate percent to compare levels of intensity. In Manual Operation the resistance dot matrix window will build a profile “picture” as values are changed during a workout.

The resistance profiles will display half of the program at one time (9 columns).They will both scroll right to left. The Lap track will move in a counterclockwise direction.

1/4 Mile/ 0.4k Track

The 1/4-mile track (one lap) will be displayed around the dot matrix window. The flashing segment indicates your progress. Once the 1/4-mile (Metric - 0.4k) is complete this feature will begin again. There is a lap counter in the message window for monitoring your distance.

Pulse Grip Feature

The Pulse (Hear t Rate) window will display your current hear t rate in beats per minute during the workout. You must use both stainless steel sensors on the stationary grips or the hear t rate transmitter chest strap to display your pulse. Pulse value displays anytime on the upper display when receiving a Pulse signal. You may not use the Grip Pulse feature while in Hear t Rate Programs.
Note: Refer to Important Safety Instructions (page 3) concerning Pulse Grip operation.

Calorie Display

Displays the cumulative calories burned at any given time during your workout. Note: This is only a rough guide used for comparison of different exercise sessions, which cannot be used for medical purposes.

Speakers

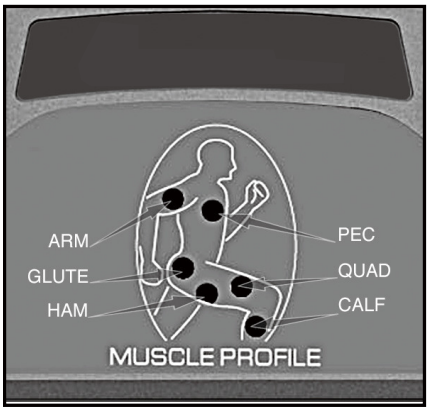
The console has built-in Speakers. You may plug an Audio Source (CD player, MP3, Computer, etc.) into the Jack on the console. There is no volume control on the console. The volume must be controlled on the Audio Source.

MUSCLE ACTIVATION FIGURE

There is an anatomical figure located at the top of the console. This figure will light all areas that are activated when using the elliptical trainer. These will light up during any of the programs. You can control which muscles are activated by customizing the resistance profile during the set up phase of console programming. If you accept the default program profile, the selected program will determine which muscles will be activated by automatically adjusting the resistance. Generally the following guidelines hold true:

The upper body LED's will not light

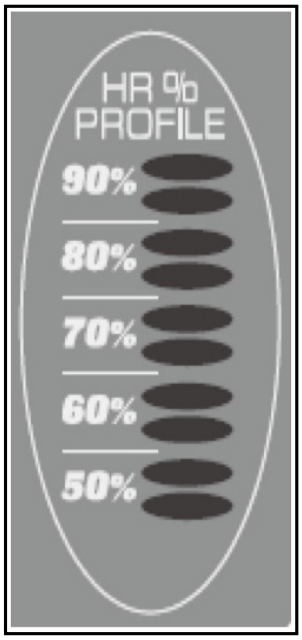
- The lower body lights will activate in three degrees of engagement: Green represents minimal muscle involvement, yellow represents medium involvement, and red represents full or heavy activation.
- These are the different scenarios for lower body muscle activation:
- Levels 1-20: Green – Hamstrings & Gluteals light up; Yellow – Quadriceps & Calves light up
- Levels 21-40:Yellow – Hamstrings & Gluteals light up; Red – Quadriceps & Calves light up



Heart Rate % Profile

The console LCD screen will display your current heart rate anytime a pulse is detected. The Bar Graph, located to the right of the LCD screen, will show your current heart rate % in relation to your projected maximum heart rate, which is determined by your age that you entered during the programming phase of any of the 10 programs. The significance of the bar graph colors are as follows:

- • 50-60% of maximum is Amber
- • 65-80% of maximum is Amber and Green
- • 85-90% or more is Amber, Green, and Red



Quick Start

This is the quickest way to star t a workout. After the console powers up you just press the Start key to begin, this will initiate the Quick Star t mode. In Quick Star t the Time will count up from zero and the workload may be adjusted manually by pressing the Level Up/Down keys. The dot matrix display will have only the bottom row lit at first. As you increase the work load more rows will light indicating a harder workout. The elliptical trainer will get harder to pedal as the rows increase.

There are 40 levels of resistance available for plenty of variety. The first 10 levels are very easy workloads and the changes between levels are set to a good progression for de-conditioned users. Levels 6-10 are more challenging, but the increases in resistance from one level to the next remain small. Levels 11-15 star t getting tough as the levels jump more dramatically. Levels 30-40 are extremely difficult and are good for short interval peaks and elite athletic training.

Basic Information

The Message Center will initially be displaying the Program name. When in scan mode during a program, speed will be displayed for four seconds, then move on and display Watts (indication of workload).
If 100 watts is displayed, you are doing enough work to keep a 100-watt light bulb lit. The data changes to Laps completed, Segment time, Max level. Pressing the Enter key again will bring you back to the beginning.

The Stop key actually has several functions. Pressing the Stop key once during a program will pause the program for 5 minutes. If you need to get a drink, answer the phone or any of the many things that could interrupt your workout, this is a great feature. To resume your workout during Pause, just press the Start key. If the Stop key is pressed twice during a workout, the program will end and the console will display your Workout Summary (Total time, Avg. Speed, Avg. Watts, Avg. HR, total Laps). If the Stop key is held down for 3 seconds or a third time during the program, the console will perform a complete Reset. During data entry for a program the Stop key performs a previous screen or segment function. This allows you to go back to change programming data.

Program Keys

The program keys are used to preview each program. When you first turn the console on you may press each program key to preview what the program profile looks like. If you decide that you want to try a program, press the corresponding program key and then press the Enter key to select the program and enter into the data-setting mode.

The elliptical trainer has a built in hear t rate monitoring system. Simply grasping the hand pulse sensors on the stationary handle bars or wearing the hear t rate transmitter (see Using Hear t Rate Transmitter section) will star t the Hear t Icon blinking (this may take a few seconds).The Pulse Display Window will display your hear t rate, or Pulse in beats per minute.

The console includes a built-in fan to help keep you cool. To turn the fan on, press the key on the left side of the console.

Programming The Console

Each of the programs can be customized with your personal information and changed to suit your needs. Some of the information is necessary to ensure the readouts are correct. You will be asked for your Age and Weight. Entering your Age is necessary during the Hear t Rate programs to ensure the correct predicted target hear t rate zone. Entering your Weight aides in calculating a more correct Calorie reading. Although we cannot provide an exact calorie count, we do want to be as close as possible.

CALORIE NOTE: Calorie readings on ever y piece of exercise equipment, whether it is in a gym or at home, are only an estimate and tend to vary widely. They are meant only as a guide to monitor your progress from workout to workout.

Entering A Program And Changing Settings

When you enter a program, by pressing a program key, then Enter key, you have the option of entering your own personal settings. If you want to workout without entering new settings, then just press the Start key. This will bypass the programming of data and take you directly to the star t of your workout.
If you want to change the personal settings then just follow the instructions in the Message Center. If you star t a program without changing the settings, the default or saved settings will be used.

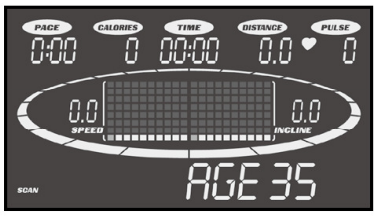
NOTE: Age and Weight default settings will change when you enter a new number. So the last Age and Weight entered will be saved as the new default settings. If you enter your Age and Weight the first time you use the elliptical trainer, you will not have to enter it ever y time you work out unless either your Age or Weight changes, or someone else enters a different Age and Weight.

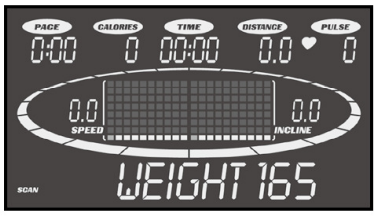
Programmable Features

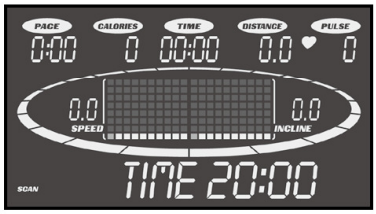
MANUAL

The Manual program works as the name implies, manually. This means that you control the workload and not the computer. To start the Manual program, follow the instructions below or just press the Start key.

1. Press the Manual key, then press the Enter key.
2. The Message Center will ask you to enter your Age. You may enter your age, using the Up/Down keys, then press the Enter key to accept the new value and proceed on to the next screen.
3. You are now asked to enter your Weight. You may adjust the Weight value using the Up/Down keys, then press Enter to continue.
4. Next is Time. You may adjust the Time and press Enter to continue.
5. Now you are finished editing the settings and can begin your workout by pressing the Start key. You can also go back and modify your settings by pressing the Stop key.
   NOTE: At any time during the editing of Data you can press the Stop key to go back one level, or screen.
6. Once the program starts you will be at level one. This is the easiest level and it is a good idea to stay at level one for a while to warm up. If you want to increase the work load at any time press the Up key; the Down key will decrease the work-load.
7. During the Manual program you will be able to scroll through the data in the Message Center by pressing the Enter key.
8. When the program ends you may press Start to begin the same program again or Stop to exit the program or you can save the program you just completed as a custom user program by pressing a User key and following the instructions in the Message Center.







Calorie Program

1. Press the **Calorie** key. Press **Enter** to select the program. The display will prompt you through the programming.
2. If **Enter** was pressed, the Message Center will now be blinking a value, indicating your Age (default is 35). Entering your correct age affects the heart rate Bar Graph Display and the Heart Rate programs. Use the **Level Up**/**Down** keys to adjust, then press **Enter**. Your age determines your recommended maximum heart rate. Since the Bar Graph Display and the Heart Rate program features are based on a percentage of your maximum heart rate, it is important to enter the correct age for these features to work properly.
3. The Message Center will now be blinking a value, indicating your Body Weight (default is100). Entering the correct body weight will affect the calorie count. Use the **Level Up**/**Down** keys to adjust, then press **Enter**.
   A note about the Calorie display: No exercise machine can give you an exact calorie count because there are too many factors which determine exact calorie burn for a particular person. Even if someone is the exact same body weight, age and height, their calorie burn may be very different than yours. The Calorie display is to be used as a reference only to monitor improvement from workout to workout.
4. The Message Center displays “Use Level Up or Down keys to adjust Calorie burn” (default is 300) After adjusting, press **Enter**.
5. The Message Center will now be blinking the preset Avg. pedal RPM (revolutions per minute) (default is 50); After adjusting press **Enter**.
6. The Message Center will now be blinking the preset top resistance of the selected program (default is Level 5). Use the **Level Up**/**Down** keys to adjust, then press **Enter**. Each program has various resistance changes throughout; this allows you to limit the highest resistance the program can reach.
7. The Message Center displays the Program Time (a value that was determined by the data you entered in steps 3-6); Press **Start** to accept the calculated Time or the **Enter** key to return to steps 4-6 and change the data, which will recalculate the Program Time.

- When the **Start** key is pressed, the program begins with a 3:00 warm up (1:00 @ Level 1, 1:00 @ Level 2, and 1:00 @ Level 3) or you have the option of pressing the **Enter** key again to bypass and begin the workout.
- When the program begins both the Calorie and Time windows will count down to 0. If the Time expires before calories burned reaches 0, the Time window will begin accumulated time, until Calories reach 0.
- After the program has ended, there will be a 3:00 cool down (1:00 @ Level 3, 1:00 @ Level 2, and 1:00 @ Level 1) or you have the option of pressing the **Enter** key to end the workout.

Fusion Program

In this interval program you will alternate between mid-high intensity cardiovascular intervals on the elliptical trainer, strength exercises off of the elliptical trainer, and low intensity recovery intervals on the elliptical trainer. You will need a pair of objects that can be comfortably held in your hands (dumbbells, water jugs, soup cans, etc.) for 4 of the 5 strength exercises performed in this program

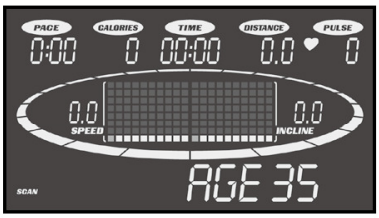
1. Press the **Fusion** key. Press **Enter** to select the program. The display will prompt you through the programming.
2. If **Enter** was pressed, the Message center will now be blinking a value, indicating your Age (default is 35). Entering your correct age affects the heart rate Bar Graph Display and the Heart Rate programs. Use the **Level Up**/**Down** keys to adjust, then press **Enter**. Your age determines your recommended maximum heart rate. Since the Bar Graph Display and the Heart Rate features are based on a percentage of your maximum heart rate, it is important to enter the correct age for these features to work properly.
3. The Message Center will now be blinking a value, indicating your Body Weight (default is 150 lbs). Entering the correct body weight will affect the calorie count. Use the **Level Up**/**Down** keys to adjust, then press **Enter**.
   A note about the Calorie display: No exercise machine can give you an exact calorie count because there are too many factors which determine exact calorie burn for a particular person. Even if someone is the exact same body weight, age and height, their calorie burn may be very different than yours.
   The Calorie display is to be used as a reference only to monitor improvement from workout to workout. The calorie count displayed in this program won't be accurate because the machine can't calculate calories expended while strength training.
4. The Message Center will now be blinking the preset top Resistance level of the selected program (default/minimum resistance is Level 5). Use the **Level Up**/**Down** keys to adjust, then press **Enter**. This value will be the Level for all cardio intervals. The resistance level can be adjusted at any time during the program.
5. The Message Center will be blinking the number of intervals desired (default is 10); you may select 10 (5 cardio & 5 strength), 20 (10 cardio & 10 strength), or 30 (15 cardio & 15 strength). Use the **Level Up**/**Down** keys to adjust, then press **Enter**.
6. The Message Center will be blinking the desired Interval time (default is 2:00). The time you select will be the duration of each cardio interval. *Note: As a general rule, the longer the interval, the less resistance (elliptical trainer) is required and the more repetitions you perform, the less weight* (dumbbells) you need to use; use the **Level Up**/**Down** keys to adjust, then press **Enter**.
7. The Message Center will be blinking the recovery time you desire (default is 0:30) after completing both the cardio &strength intervals. Use the **Level Up**/**Down** keys to adjust, then press **Enter**.

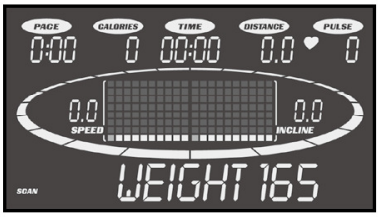
***CAUTION**: the shorter the recovery time, the longer your heart rate will stay elevated; if you are new to exercise or have recently resumed an exercise program after a considerable amount of time off, it is recommended that your recovery interval length either matches or exceeds the length of the cardio interval.*

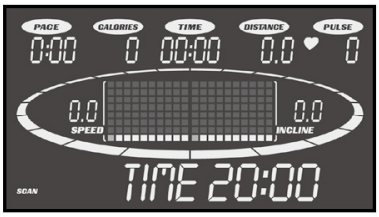
- The user selects 10 intervals (5 cardio and 5 strength) with the following interval durations – length of each cardio and recovery interval is 1:00
- Program begins with a 3:00 warm up (1:00 @ Level 1, 1:00 @ Level 2, and 1:00 @ Level 3). You have the option to press Enter to bypass the warm up.
- 1st cardio interval begins, lasting 1:00; console counts down to 0:00 and the Message Center displays "STRENGTH INTERVAL BEGIN DUMBBELL ROW"
- User exits the elliptical trainer to perform the strength exercise. The user now performs 8-20 repetitions (each repetition is 1 up and down portion of the exercise). *Note: if you are a beginner or are in below average physical condition, perform each repetition in approximately 2 seconds (1 second up, 1 second down); if you are in average or above average physical condition, with no medical issues, you have the option to perform the repetitions faster (1 second total: .5 seconds up, .5 seconds down). After completing all of your repetitions, sit back on the elliptical trainer to proceed with your recovery interval.*
- Console displays "PRESS ENTER TO BEGIN RECOVERY"; user pedals @ Level 1 for 1:00
- Console then displays 2nd cardio interval and the process proceeds until the user has performed
- 5 cardio, 5 strength, and 5 recovery intervals; the 5 strength exercises will be performed 1x each. If you selected 20 intervals, you would perform each strength exercise twice, before proceeding to the next exercise. If you selected 30 intervals, you will perform each strength exercise 3x (each exercise once, until all five have been performed, then repeat the sequence twice more).
- The last 2 segments of the program are a Cool Down phase with the user pedaling @ Level 1. This can be by-passed by pressing Enter to end the program.

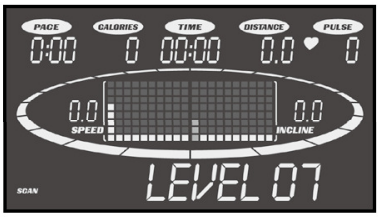
Caution: Exercises that require dumbbell use - Select a pair of dumbbells that you will be able to safely and effectively maneuver for all of the strength intervals.

Programming Preset Programs









1. Select the desired program key then press the **Enter** key.
2. The Message Center will ask you to enter your Age. You may adjust the age setting, using the **Level Up**/**Down** keys, then press the **Enter** key to accept the new number and proceed on to the next screen.
3. You are now asked to enter your Weight. You may adjust the Weight value using the **Level Up**/**Down** keys, then press **Enter** to continue.
4. Next is Time. You may adjust the time and press **Enter** to continue.
5. Now you are asked to adjust the Max Resistance Level. This is the peak exertion level you will experience during the program. Adjust the level and then press **Enter**.
6. Now you are finished editing the settings and can begin your workout by pressing the **Start** key. You can also go back and modify your settings by pressing the **Enter** key.
7. If you want to increase or decrease the resistance at any time during the program, press the **Level Up**/**Down** keys on the console or above the heart rate sensor grips of the stationary handlebars. This will change the resistance settings of the entire profile, although the profile picture on the screen will not change. The reason for this is so that you can see the entire profile at all times. If the profile picture is changed, it also would be distorted and not a true representation of the actual profile. When you make a change to the resistance, the Message Center will show the current column and program maximum levels of work.
8. During the program you will be able to scroll through the data in the message window by pressing the **Enter** key.
9. When the program ends the Message Center will show a summary of your workout. The summary will be displayed for a short time, then the console will return to the start-up display.

Custom User Defined Programs

There are two customizable User programs that allow you to build and save your own workout. The two programs, **User 1** and **User 2**, operate exactly the same way so there is no reason to describe them separately. You can build your own custom program by following the instructions below or you can save any other preset program you complete as a custom program. Both programs allow you to further personalize it by adding your name.

1. Press the **User 1** or **User 2** key. The Message Center will show a welcome message. If you had previously saved a program the message will contain your name. Then press the **Enter** key to begin programming.
2. When you press **Enter**, the Message Center will show “Name - A”, if there is no name saved. If the name “David” had been previously saved the Message Center will show “Name - David” and the D will be blinking. If there is a name saved you can change it or you may press the **Stop** key to keep the name and continue to the next step. If you want to enter a name use the **Up**/**Down** key to change the first letter then press **Enter** to save the first letter and continue to the next letter. When you have finished entering the name press the **Stop** key to save the name and continue to the next step.
3. The Message Center will ask you to enter your Age. You may enter your age, using the **Level Up**/**Down** keys, then press the **Enter** key to accept the new value and proceed on to the next screen.
4. You are now asked to enter your Weight. You may adjust the weight value using the **Up**/**Down** keys or the numeric key pad, then press **Enter** to continue.
5. Next is Time. You may adjust the time and press **Enter** to continue.
6. Now you are asked to adjust the Max Resistance Level of the program, press **Enter** when resistance has been selected.
7. Now the first column will be blinking and you are asked to adjust the resistance level for the first segment(SEGMENT > 1) of the workout by using the **Level Up** key. When you finish adjusting the first segment, or if you don’t want to change, then press **Enter** to continue to the next segment.
8. The next segment will show the same workload resistance level as the previously adjusted segment. Repeat the same process as the last segment then press **Enter**. Continue this process until all twenty segments have been set.

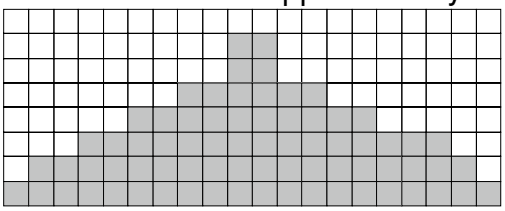
9. The Message Center will then tell you to press Enter to save the program. After saving the program the Message Center says “New program saved” then will give you the option to start or modify the program. Pressing Stop will exit to the start up screen.

Preset Programs

The elliptical has five different programs that have been designed for a variety of workouts. These five programs have factory preset work level profiles for achieving different goals.

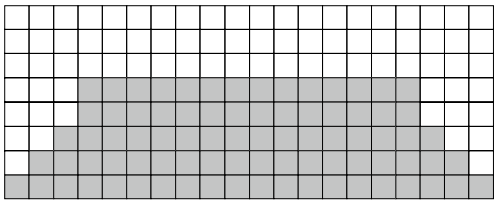
Hill

This program follows a triangle or pyramid type of gradual progression from approximately 10% of maximum effort (the level that you chose before starting this program) up to a maximum effort which lasts for 10% of the total workout time, then a gradual regression of resistance back to approximately 10% of maximum effort



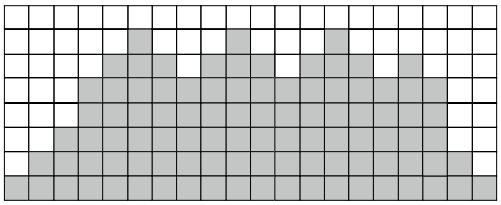
Fat Burn

This program follows a quick progression up to the maximum resistance level (default or user input level) that is sustained for 2/3 of the workout. This program will challenge your ability to sustain your energy output for an extended period of time.

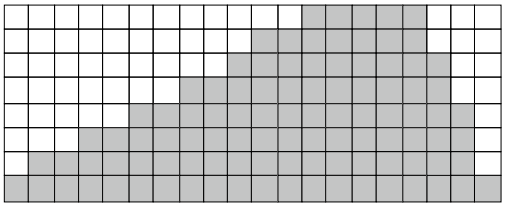


Cardio

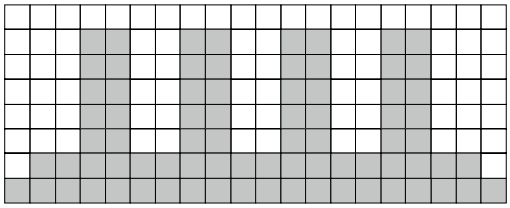
This program presents a quick progression up to near maximum resistance level (default or user input level). It has slight fluctuations up and down to allow your heart rate to elevate, and then recover repeatedly, before beginning a quick cool down. This will build up your heart muscle and increase blood flow and lung capacity.



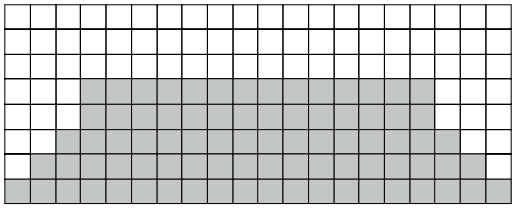
Strength
This program has a gradual progression of resistance up to 100% of maximum effort that is sustained for 25% of workout duration. This will help build strength and muscular endurance in the lower body and glutes. A brief cool down follows.



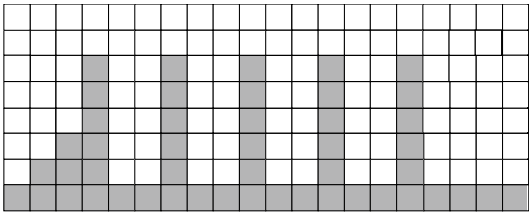
Interval
This program takes you through high levels of intensity followed by recovery periods of low intensity. This program utilizes and develops your “Fast Twitch” muscle fibers which are used when performing tasks that are intense and short in duration. These deplete your oxygen level and spike your heart rate, followed by periods of recovery and heart rate drop to replenish oxygen. Your cardiovascular system gets programmed to use oxygen more efficiently.



CALORIES
This program follows a quick progression up to the maximum resistance level (default or user input level) that is sustained for 2/3 of the workout. This program will challenge your ability to sustain your energy output for an extended period of time.



FUSION
This program takes you through high levels of cardio & strength intensity followed by recovery periods of low intensity. This program utilizes and develops your “Fast Twitch” muscle fibers which are used when performing tasks that are intense and short in duration. These deplete your oxygen level and spike your heart rate, followed by periods of recovery and heart rate drop to replenish oxygen. Your cardiovascular system gets programmed to use oxygen more efficiently.



Heart Rate Programs

Before we get started, a word about Heart Rate:
The old motto, “no pain, no gain”, is a myth that has been overpowered by the benefits of exercising comfortably. A great deal of this success has been promoted by the use of heart rate monitors. With the proper use of a heart rate monitor, many people find that their usual choice of exercise intensity was either too high or too low and exercise is much more enjoyable by maintaining their heart rate in the desired benefit range.

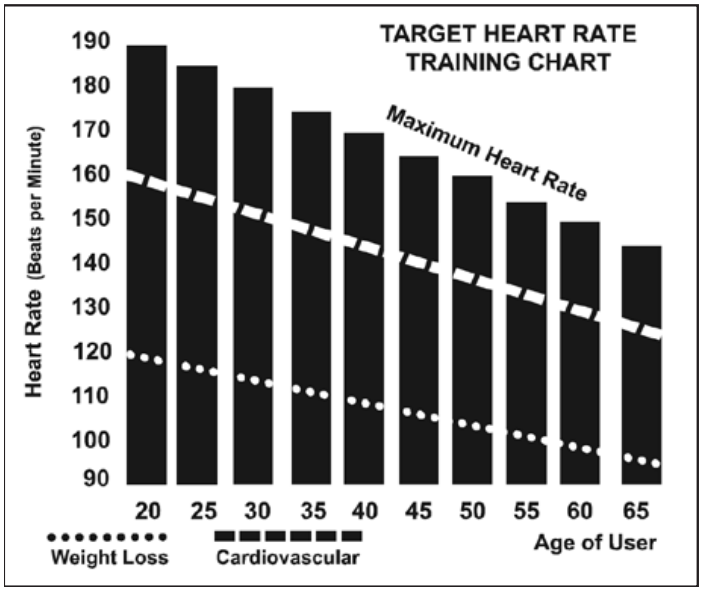
To determine the benefit range in which you wish to train, you must first determine your Maximum Heart Rate. This can be accomplished by using the following formula: 220 minus your age. This will give you the Maximum heart rate (MHR) for someone of your age. To determine the effective heart rate range for specific goals you simply calculate a percentage your MHR. Your Heart rate training zone is 50% to 90% of your maximum heart rate. 60% of your MHR is the zone that burns fat while 80% is for strengthening the cardio vascular system. This 60% to 80% is the zone to stay in for maximum benefit.

For someone who is 40 years old their target heart rate zone is calculated:

220 – 40 = 180 (maximum heart rate)
180 x .6 = 108 beats per minute (60% of maximum)
180 X .8 = 144 beats per minute (80% of maximum)

So for a 40 year old the training zone would be 108 to 144 beats per minute.

If you enter your age during programming the console will perform this calculation automatically. Entering your age is used for the Heart Rate control programs. After calculating your Maximum Heart Rate you can decide upon which goal you would like to pursue.



The two most popular reasons for, or goals, of exercise are cardiovascular fitness (training for the heart and lungs) and weight control. The black columns on the chart above represent the Maximum Heart Rate for a person whose age is listed at the bottom of each column. The training heart rate, for either cardiovascular fitness or weight loss, is represented by two different lines that cut diagonally through the chart. A definition of the lines’ goal is in the bottom left-hand corner of the chart. If your goal is cardiovascular fitness or if it is weight loss, it can be achieved by training at 80% or 60%, respectively, of your Maximum Heart Rate on a schedule approved by your physician. Consult your physician before participating in any exercise program.

With all Heart Rate Control elliptical you may use the heart rate monitor feature without using the Heart Rate Control program. This function can be used during manual mode or during any of the nine different programs. The Heart Rate Control program automatically controls resistance at the pedals.

Rate Of Perceived Exertion

Heart rate is important but listening to your body also has a lot of advantages. There are more variables involved in how hard you should workout than just heart rate. Your stress level, physical health, emotional health, temperature, humidity, the time of day, the last time you ate and what you ate, all contribute to the intensity at which you should workout. If you listen to your body, it will tell you all of these things.

The rate of perceived exertion (RPE), also know as the Borg scale, was developed by Swedish physiologist G.A.V. Borg. This scale rates exercise intensity from 6 to 20 depending upon how you feel or the perception of your effort.

The scale is as follows:

Rating Perception of Effort

6 Minimal

7 Very,very light

8 Very,very light +

9 Very light

10 Very light +

11 Fairly light

12 Comfortable

13 Somewhat hard

14 Somewhat hard +

15 Hard

16 Hard +

17 Very hard

18 Very hard +

19 Very,very hard

20 Maximal

You can get an approximate heart rate level for each rating by simply adding a zero to each rating. For example a rating of 12 will result in an approximate heart rate of 120 beats per minute. Your RPE will vary depending up the factors discussed earlier. That is the major benefit of this type of training. If your body is strong and rested, you will feel strong and your pace will feel easier. When your body is in this condition, you are able to train harder and the RPE will support this. If you are feeling tired and sluggish, it is because your body needs a break. In this condition, your pace will feel harder. Again, this will show up in your RPE and you will train at the proper level for that day.

Using A Heart Rate Transmitter (OPTIONAL)

How to wear your wireless chest strap transmitter:

1. Attach the transmitter to the elastic strap using the locking parts.
2. Adjust the strap as tightly as possible as long as the strap is not too tight to remain comfortable.
3. Position the transmitter with the logo centered in the middle of your body facing away from your chest (some people must position the transmitter slightly left of center). Attach the final end of the elastic strap by inserting the round end and, using the locking parts, secure the transmitter and strap around your chest.
4. Position the transmitter immediately below the pectoral muscles.
5. Sweat is the best conductor to measure very minute heart beat electrical signals. However, plain water can also be used to pre-wet the electrodes (2 ribbed oval areas on the reverse side of the belt and both sides of the transmitter). It's also recommended that you wear the transmitter strap a few minutes before your work out. Some users, because of body chemistry, have a more difficult time in achieving a strong, steady signal at the beginning. After "warming up", this problem lessens. As noted, wearing clothing over the transmitter/strap doesn't affect performance.
6. Your workout must be within range - distance between transmitter/receiver – to achieve a strong steady signal. The length of range may vary somewhat but generally stay close enough to the console to maintain good, strong, reliable readings. Wearing the transmitter immediately against bare skin assures you of proper operation. If you wish, you may wear the transmitter over a shirt. To do so, moisten the areas of the shirt that the electrodes will rest upon.

Note: The transmitter is automatically activated when it detects activity from the user's heart. Additionally, it automatically deactivates when it does not receive any activity. Although the transmitter is water resistant, moisture can have the effect of creating false signals, so you should take precautions to completely dry the transmitter after use to prolong battery life (estimated transmitter battery life is 2500 hours). The replacement battery is Panasonic CR2032.

ERRATIC OPERATION

Caution! Do not use this elliptical for Heart Rate Control unless a steady, solid Actual Heart Rate value is being displayed. High, wild, random numbers being displayed indicate a problem.

Areas to look for interference which may cause erratic heart rate:

1. Microwave ovens, TV's, small appliances, etc.
2. Fluorescent lights.
3. Some household security systems.
4. Perimeter fence for a pet.
5. Some people have problems with the transmitter picking up a signal from their skin. If you have problems try wearing the transmitter upside down. Normally the transmitter will be oriented so the logo is right side up.
6. The antenna that picks up your heart rate is very sensitive. If there is an outside noise source, turning the whole machine 90 degrees may de-tune the interference.
7. Another Individual wearing a transmitter within 3' of your machine's console.

If you continue to experience problems contact your dealer.

Heart Rate Program Operation

Note: You must wear the heart rate transmitter strap for these programs

Both programs operate the same, the only difference is that **HR1** is set to 60% and **HR2** is set to 80% of the maximum heart rate. They both are programmed the same way.

To start an HR program follow the instructions below or just select the **HR1** or **HR2** program, then the **Enter** button and follow the directions in the Message Center.

After selecting your heart rate target, the program will attempt to keep you at or within 3 - 5 heart beats per minute of this value. Follow the prompts in the Message Center to maintain your selected heart rate value.

1. Press the **HR 1** or **HR 2** key then press the **Enter** key.
2. The Message Center will ask you to enter your Age. You may enter your age, using the **Level Up**/**Down** keys, then press the **Enter** key to accept the new value and proceed on to the next screen.
3. You are now asked to enter your Weight. You may adjust the weight value using the **Level Up**/**Down** keys, then press **Enter** to continue.
4. Next is Time. You may adjust the time and press **Enter** to continue.
5. Now you are asked to adjust the Heart Rate Target. This is the heart rate level you will strive to maintain during the program. Adjust the level using the **Level Up**/ **Down** keys, then press **Enter**. *Note: The heart rate that appears is based on the % you accepted in Step 2.*
6. Now you are finished editing the settings and can begin your workout by pressing the **Start** key. You can also go back and modify your settings by pressing the **Enter** key.
7. If you want to increase or decrease the workload at any time during the program press the **Level Up**/**Down** key. This will allow you to change your target heart rate at any time during the program.
8. During the HR 1 or HR 2 programs you will be able to scroll through the data in the Message Center by pressing the **Enter** key.
9. When the program ends you may press **Start** to begin the same program again or **Stop** to exit the program.

General Maintenance

1. Wipe down all areas in the sweat path with a damp cloth after each workout.
2. If a squeak, thump, clicking or rough feeling develops the main cause is most likely one of two reasons:

I. The hardware was not sufficiently tightened during assembly. All bolts that were installed during assembly need to be tightened as much as possible. It may be necessary to use a larger wrench than the one provided if you cannot tighten the bolts sufficiently. I cannot stress this point enough; 90% of calls to the service department for noise issues can be traced to loose hardware.

II. The crank arm nut needs to be retightened

III. If squeaks or other noises persist, check that the unit is properly leveled. There are 2 leveling pads on the bottom of the rear stabilizer, use a 14mm wrench (or adjustable wrench) to adjust the levelers.

ENGINEERING MODE MENU

The console has built in maintenance/diagnostic software. The software will allow you to change the console settings from English to Metric and turn off the beeping of the speaker when a key is pressed for example. To enter the Engineering Mode Menu, press and hold down the Start, Stop and Enter keys. Keep holding the keys down for about 5 seconds and the Message Center will display Engineering Mode Menu. Press the Enter key to access the menu below:

a. Key Test (Will allow you to test all the keys to make sure they are functioning)
b. LCD Test (Tests all the display functions)
c. Functions (Press **Enter** to access settings and **Up** arrow to scroll)

I. Sleep Mode (Turn on to have the console power down automatically after 20 minutes of inactivity)

II. Pause Mode (Turn on allow 5 minutes of pause, turn off to have the console pause indefinitely)

III. ODO Reset (Resets the odometer)

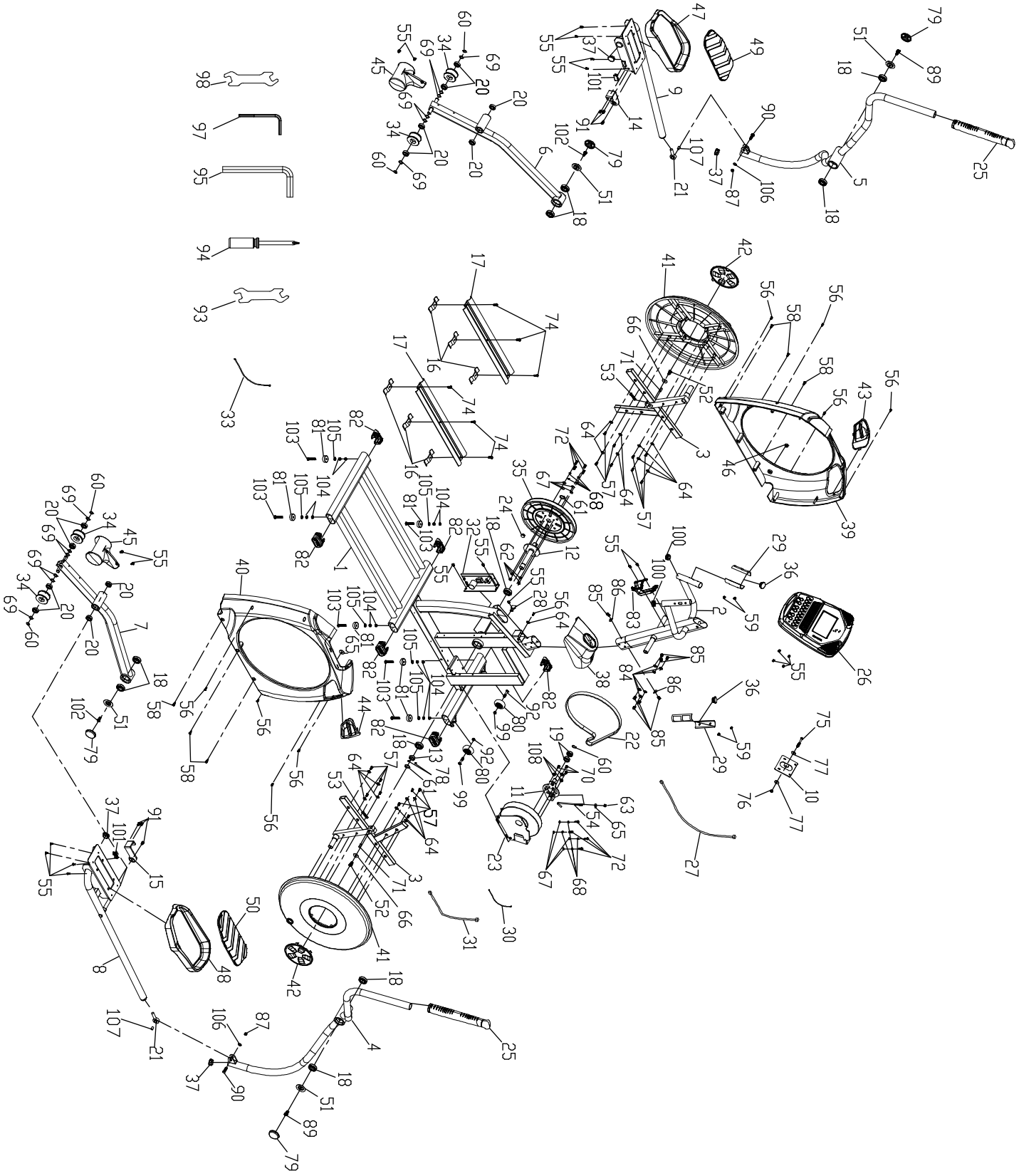
IV. Units (Sets the display to readout in English or Metric display measurements)

V. Beep (Turns off the speaker so no beeping sound is heard)

VI. DA Test (Tests the brake resistance)

d. Security (Allows the keypad to be locked to prevent unauthorized use)

Exploded View Diagram



Parts List

KEY NO.	DESCRIPTION	Q'TY
1	Main Frame	1
2	Console Mast	1
3	Cross Bar	2
4	Swing Arm (R)	1
5	Swing Arm (L)	1
6	Pedal Arm (L)	1
7	Pedal Arm (R)	1
8	Connecting Arm (R)	1
9	Connecting Arm (L)	1
10	Console Holder Assembly	1
11	Idler Wheel Assembly	1
12	Crank Axle	1
13	Axle Stopper	1
14	5-way Pipe Fixing Plate(L)	1
15	5-way Pipe Fixing Plate(R)	1
16	Retaining Bracket, Aluminum Track	6
17	Aluminum Track	2
18	6005_Bearing	10
19	6203_Bearing	2
20	6003_Bearing	12
21	M12 × P1.75_Rod End Bearing	2
22	Drive Belt	1
23	Induction Brake	1
24	Magnet	1
25	Ø38 × 380m/m_TPR Handle Bar Axle Inner Cover	2
26	Console Assembly	1
27	1300m/m_Computer Cable	1
28	150m/m_Sensor W/Cable	1
29	850m/m_Handpulse W/Cable Assembly	2
30	600m/m_Wire Brake Coil Harness(Red)	1
31	Generator Wire Harness	1
32	Generator/Brake Controller	1
33	400m/m_Audio Cable (Optional)	1
34	Ø78_Slide Wheel , Urethane	4
35	Ø330_Drive Pulley	1
36	Ø32(1.8T)_Button Head Plug	2
37	Pedal End Cover	4
38	Console Mast Cover	1
39	Side Case (L)	1

KEY NO.	DESCRIPTION	Q'TY
40	Side Case (R)	1
41	Round Disk	2
42	Round Disk Cover	2
43	Side Case Plate(L)	1
44	Side Case Plate(R)	1
45	Slide Wheel Cover	2
46	End Cap	1
47	Pedal (L)	1
48	Pedal (R)	1
49	Pedal Foam (L)	1
50	Pedal Foam (R)	1
51	M10_Bushing washer	4
52	3/8" × 3/4"_Hex Head Bolt	2
53	M8 × 30m/m_Socket Head Cap Bolt	2
54	M8 × 170m/m_J Bolt	1
55	M5 × 10m/m_Phillips Head Screw	21
56	Ø3.5 × 16m/m_Sheet Metal Screw	9
57	5 × 16m/m_Tapping Screw	16
58	5 × 16m/m_Tapping Screw	6
59	Ø3 × 20m/m_Tapping Screw	4
60	Ø17_C Ring	5
61	Ø25_C Ring	2
62	1/4"_Nyloc Nut	4
63	M8 × 9T_Nyloc Nut	1
64	1/4" × 19m/m_Flat Washer	17
65	5/16" × 23 × 1.5T_Flat Washer	2
66	3/8" × 30 × 2.0T_Flat Washer	2
67	1/4" × 13 × 1T_Flat Washer	8
68	1/4"_Spring Washer	8
69	Ø17 _Wave Washer	12
70	M6 × 15m/m_Phillips Head Screw	3
71	7 × 7 × 25_Woodruff Key	2
72	1/4" × 3/4"_Hex Head Bolt	8
74	5/16" × 3/4"_Hex Head Bolt	6
75	5/16 × 2-1/2"_Hex Head Bolt	1
76	5/16" × 7T_Nyloc Nut	1
77	5/16" × 25 × 3T_Nylon Washer	2
78	M5 × 5m/m_Slotted Set Screw	2
79	Bushing Round End Cap	4
80	Transportation Wheel	2

KEY NO.	DESCRIPTION	Q'TY
81	Ø35 × 10m/m_Rubber Foot	6
82	Handgrip End Cap	6
83	Drink Bottle Holder	1
84	5/16" × 18 × 1.5T_Flat Washer	6
85	M8 × 15L_Hex Head Bolt	8
86	5/16" × 23 × 1.5T_Curved Washer	2
87	5/16" × 9T_Nyloc Nut	2
89	M10 × 1.5 × 20m/m_Socket Head Cap Bolt	2
90	5/16" × 1-1/4"_Hex Head Bolt	2
91	M8 × 1.25 × 15m/m_Button Head Socket Bolt	6
92	5/16" × 1-3/4"_Button Head Socket Bolt	2
93	13/14m/m_Wrench	1
94	Phillips Head Screw Driver	1
95	8m/m_L Allen Wrench	1
97	5m/m_L Hex Key Wrench Set	1
98	12/14m/m_Wrench	1
99	5/16"_Nyloc Nut	2
100	Ø32 (1.8T)_Round Cap	2
101	40 × 20m/m_Square End Cap	2
102	5/16" × 19m/m_Socket Head Cap Bolt	2
103	3/8" × 16UNC × 2"_Thumb Head Screw	6
104	3/8" × 7T_Nut	12
105	3/8" × Ø19 × 1.5T_Flat Washer	6
106	Ø5/16" × Ø20 × 1.5T_Flat Washer	2
107	Rod End Sleeve	2
108	Idler Bolt Bearing	3